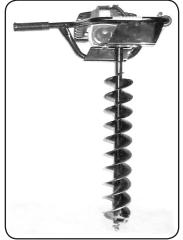


# GASOLINE AUGER DRILL 1.5 HP Model 95346

# **ASSEMBLY AND OPERATION INSTRUCTIONS**



Due to continuing improvements, actual product may differ slightly from the product described herein.

#### CAUTION! Your Warranty Is Voided If:

You do not operate the Auger Drill with the proper 25:1 unleaded fuel/2-cycle oil mix in its fuel tank. Never run the Engine with an improper fuel mix, low or no fuel mix. Running the Engine with an improper fuel mix, low or no fuel mix, will permanently damage the unit.

You do not operate the Auger Drill with the proper amount of SAE 80-90 gear oil in its Gearbox. Never run the Auger Drill with low or no gear oil. Running the Auger Drill with low or no gear oil will permanently damage the unit.



3491 Mission Oaks Blvd., Camarillo, CA 93011 Visit our website at: http://www.harborfreight.com

### TO PREVENT SERIOUS INJURY, READ AND UNDERSTAND ALL WARNINGS AND INSTRUCTIONS BEFORE USE.

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For technical questions or replacement parts, please call 1-800-444-3353. Manual Revised 07b, 07e

# SPECIFICATIONS

|                        | · · · · · · · · · · · · · · · · · · ·                              |
|------------------------|--|
| Engine Specifications  | 1.5 HP / 52cc / Single Cylinder / 2-Stroke / Recoil Start          |
| Fuel Required          | 25:1 Unleaded Gasoline (89 octane or better) & 2 Cycle Oil Mixture |
| Fuel Tank Capacity     | 0.26 Gallon  |
| Recommended Gear Oil   | SAE 80 – 90 Weight Gear Oil  |
| Rotation               | Single Rotation Only (Clockwise)                                   |
| Drilling Speed         | 150 RPM  |
| Maximum Drilling Depth | 1' 10"   |
| Auger Diameter         | 4"   |
| Overall Bit Length     | 2' 6-3/4" Long   |
| Cutting Edge Length    | 2' Long  |
| Drive Shaft            | 7/8" Diameter x 1-1/2" Long  |
| Accessories            | Auger Bit / Fuel & Oil Mixing Container / Spark Plug Wrench        |
|                        | Flat Head Screwdriver / Hex Keys (Qty. 2) / Storage Bag            |
| Weight                 | 17-1/4 lb. (without fuel and oil)                                  |

This product requires a 25:1 ratio of unleaded fuel and 2-cycle oil to be added to its fuel tank before starting. Attempting to start the Engine with an improper fuel mix, low or no fuel mix WILL ruin the Engine and void the warranty.

This product requires the proper amount of SAE 80-90 gear oil in its Gear Case before starting. Attempting to start the Auger Drill with low or no gear oil <u>WILL</u> ruin the Gear Case and void the warranty.

The Engine's Carburetor may need to be adjusted by a qualified mechanic for efficient high-altitude use.

The Emission Control System for this product's engine is warranted for standards set by the U.S. Environmental Protection Agency. For warranty information, refer to the last pages of this manual.

### SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

# **GENERAL SAFETY RULES AND PRECAUTIONS**

### 

READ AND UNDERSTAND ALL INSTRUCTIONS Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury. SAVE THESE INSTRUCTIONS

### WORK AREA

- 1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
- 2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
- 3. **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control. Provide barriers or shields as needed. Children should not be allowed in the work area.

### PERSONAL SAFETY

- 1. Stay alert. Watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
- 2. Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
- 3. Avoid accidental starting. Make sure to remove the Spark Plug before performing any service, maintenance, or cleaning procedures on the unit.
- 4. **Remove adjusting keys or wrenches before turning the Auger Drill on.** A wrench or a key that is left attached to a rotating part of the machine may result in personal injury.
- 5. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the power tool in unexpected situations.

### **TOOL USE AND CARE**

1. **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.

- 2. **Do not use the Auger Drill if the Kill Switch does not turn it off.** Any tool that cannot be controlled with its Kill Switch is dangerous and must be replaced.
- 3. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- 4. **Maintain tools with care.** Properly maintained tools are less likely to malfunction and are easier to control. Do not use a damaged tool. Tag damaged tools "**Do not use**" until repaired.
- 5. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.
- 6. Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool may become hazardous when used on another tool.

# SERVICE

- 1. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
- 2. When servicing a tool, use only identical replacement parts. Follow instructions in the *"Inspection, Maintenance, And Cleaning"* section of this manual. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

# SPECIFIC SAFETY RULES AND PRECAUTIONS

- 1. IMPORTANT! Your Warranty is voided if:
  - a. You do not operate the Auger Drill with the proper 25:1 fuel mix in its fuel tank. Never run the Engine with an improper fuel mix, low or no fuel mix. Running the Engine with an improper fuel mix, low or no fuel mix, will permanently damage the unit.
  - b. You do not operate the Auger Drill with the proper amount of SAE 80-90 gear oil in its Gearbox. Never run the Auger Drill with low or no gear oil. Running the Auger Drill with low or no gear oil will permanently damage the unit.
- 2. **Maintain labels and nameplates on the Auger Drill.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.



3.

**Always wear safety equipment.** When operating the Auger Drill, always wear ANSI-approved safety impact eye goggles, hearing protection, heavy duty work gloves, sturdy steel-toed work boots, and head protection.

- 4. **Never leave the Auger Drill unattended when it is running.** Turn off the Engine before leaving.
- 5. Do not allow children and other unauthorized people to handle or play with the Auger Drill. Never leave the drill unattended in an area accessible to children.
- 6. Always maintain a firm grip on the Auger Drill with both hands and be aware of the strong start-up torque of the tool.
- 7. Always keep your thumb near the Kill Switch in the event the Auger Drill must be turned off immediately.
- 8. Do not use the Auger Drill if the Auger is dull, bent, or damaged.
- 9. Avoid accidental damage to underground pipes, electric lines, cables, etc. and possible personal injury. Always contact your local public utility companies (gas, water, electric, cable, etc.) prior to drilling in an unknown area.
- 10. **Always drill with the Engine running at full speed.** Fully squeeze the Speed Control Lever and maintain a steady drilling speed.
- 11. Always keep the Auger clean and sharp.
- 12. Keep all guards and safety devices in proper working order and properly adjusted.
- 13. Before starting the Engine, make sure the Auger is not contacting any object.
- 14. When shutting off the Engine, and make sure the Auger has stopped before setting the tool down.

### **CARBON MONOXIDE PRECAUTIONS**

This Auger Drill is designed for outdoor use only. Do not operate the Auger Drill in a closed area or in a poorly ventilated area. When running, the Engine of this product produces carbon monoxide, a colorless, odorless, toxic gas that, when inhaled, can cause serious personal injury or death.

### FIRE AND EXPLOSION PRECAUTIONS



**Gasoline fuel and fumes are flammable, and potentially explosive.** Use proper fuel storage and handling procedures. Always have multiple ABC class fire extinguishers nearby.

2. Keep the Auger Drill and surrounding areas clean at all times.

- 3. When spills of fuel or oil occur, they must be cleaned up immediately. Dispose of fluids and cleaning materials as per any local, state, or federal codes and regulations. Store oil rags in a covered metal container.
- 4. Never store fuel or other flammable materials near the Auger Drill.
- 5. **Do not smoke, or allow sparks, flames, or other sources of ignition around the Auger Drill.**
- 6. Keep grounded conductive objects, such as tools, away from exposed, live electrical parts and connections to avoid sparking or arcing. These events could ignite fumes or vapors.
- 7. **Do not refill the Fuel Tank while the Engine is running or while the Engine is still hot.** Do not operate the Auger Drill with known leaks in the fuel system.
- 8. Use only Engine manufacturer recommended fuel and oil.

### **MECHANICAL PRECAUTIONS**

- 1. Prior to performing service, maintenance, or cleaning procedures, always allow the Engine to completely cool. Then, remove the spark plug from the Engine.
- 2. Do not alter or adjust any part of the Auger Drill or Engine that is assembled and supplied by the manufacturer.
- 3. Always follow and complete scheduled Auger Drill and Engine maintenance.

### **CHEMICAL PRECAUTIONS**

- 1. Avoid contact with hot fuel, oil, exhaust fumes, and solid surfaces.
- 2. Avoid body contact with fuels, oils, and lubricants used in the Auger Drill and Engine. If swallowed, seek medical treatment immediately. Do not induce vomiting if fuel is swallowed. For skin contact, immediately wash with soap and water. For eye contact, immediately flush eyes with clean water.

### **NOISE PRECAUTIONS**

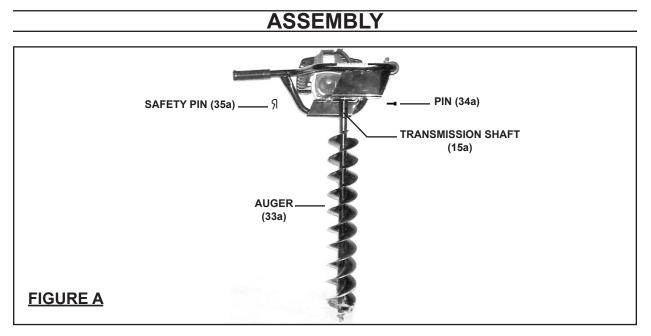
**Prolonged exposure to high noise levels is hazardous to hearing.** Always wear proper hearing protection when operating or working around the Auger Drill when it is running.

### **ADDITIONAL PRECAUTIONS**

- 1. **DANGER!** People with pacemakers should not use this tool. This tool produces strong electromagnetic fields that can cause pacemaker interference or pacemaker failure. People with pacemakers should consult their physician(s) for advice.
- 2. **WARNING!** The warnings and precautions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

#### UNPACKING

When unpacking, check to make sure all the parts shown on the **Parts Lists on pages 14, 16, and 18** are included. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

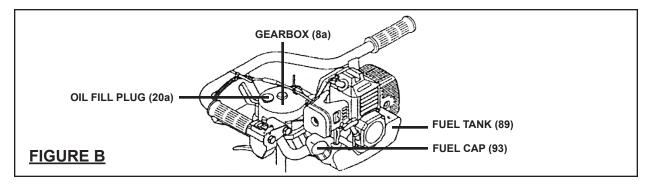


Insert the shank of the Auger (33a) fully upward into the Transmission Shaft (15a). Align the mounting holes in the Auger and Transmission Shaft. Then secure the Auger to the Auger Drill, using the Pin (34a) and Safety Pin (35a). **(See Figure A.)** 

# **PRE-START INSTRUCTIONS**

### Fill the Fuel Tank

- 1. **IMPORTANT!** Your warranty is voided if you do not operate the Auger Drill with the proper 25:1 fuel mix in its Fuel Tank (89). Never run the Engine with an improper fuel mix, low or no fuel mix. Running the Engine with an improper fuel mix, low or no fuel mix will permanently damage the unit.
- To obtain the proper 25:1 fuel mix, combine 25 parts unleaded gasoline (89+ octane) with 1 part 2-cycle oil in the provided Fuel Mix Container (36a). Cover and shake to thoroughly mix before each fueling. NOTE: Mix only enough fuel for a few days work. The maximum storage time of mixed fuel is *three* months.



- Once the proper fuel mix is obtained, remove the Fuel Cap (93). Fill the Fuel Tank (89) approximately 3/4 full with the fuel mix. Then, replace the Fuel Cap. (See Figure B.)
- 4. **WARNING! NEVER** attempt to fill the Fuel Tank (89) when the Engine is running or hot to the touch.

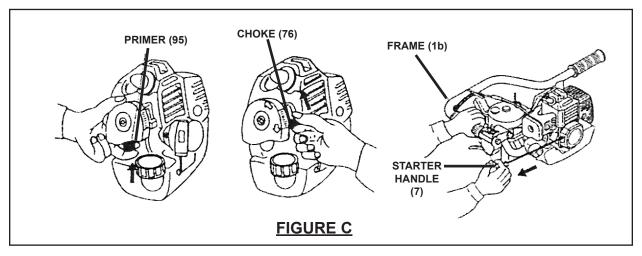
### Fill the Gearbox

- 1. **IMPORTANT!** Your warranty is voided if you do not operate the Auger Drill with the proper amount of SAE 80-90 gear oil in its Gearbox (8a). Never run the Auger Drill with low or no gear oil. Running the unit with low or no gear oil will permanently damage the unit.
- Remove the Oil Fill Plug (20a) and carefully fill (approximately 8-1/2 ounces) the Gearbox (8a). Then, replace the Oil Fill Plug and tighten securely. (See Figure B.)
- 3. **NOTE:** Do not use dirty, used, or otherwise contaminated gear oil. Damage may occur to the internal mechanisms of the Gearbox (8a).

# **OPERATION**

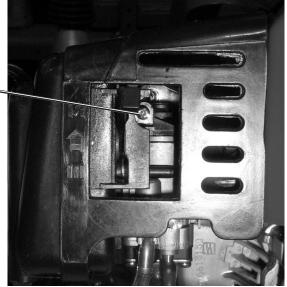
### **Starting and Stopping**

- 1. **WARNING! Always wear safety equipment.** When operating the Auger Drill, always wear ANSI-approved safety impact eye goggles, hearing protection, heavy duty work gloves, sturdy work boots, and head protection.
- 2. Place the Auger Drill on its side with its Auger (33a) resting upon the ground surface location that is to be drilled. <u>Make sure that no debris, clothing, or other objects</u> <u>are near the auger bit. Keep all bystanders away.</u>

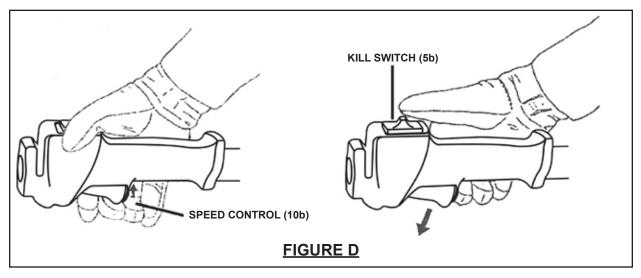


- 3. Depress the Primer (95) three to four times. (See Figure C.)
- Set the Choke (76) (See Figure C.) to the appropriate position: Closed if the Engine is cold. Open if the Engine is warm.
- 5. Grip the Frame (1b) firmly with your left hand. Keep all body parts well away from the bit. Then, with your right hand, pull rapidly on the Starter Handle (7) to start the Engine. (See Figure C.)

- 6. MARNING! The Auger (33a) should never turn at idle. If it is turning at idle, turn the Idle Screw of the Carburetor Idle Stop (shown right) counterclock- Screw wise to reduce the idle RPM Location and stop the Auger, or immediately discontinue using the Auger Drill and contact a qualified service technician to make the adjustment.
- 7. Once the Engine is started, set the Choke (76) to its open position.



- 8. If the Engine *does not* start, press the Primer (95) again. Set the Choke (76) to its closed position, and again attempt to start the Engine. (See Figure C.)
- 9. **NOTE:** If the Engine is new, or has been stored for a long period of time, pull the Starter Handle (7) several times to ensure sufficient fuel is delivered into the fuel line and combustion chamber of the Engine. **(See Figure C.)**



- 10. As soon as the Engine is running, check to make sure the Choke (76) is in its open position. Squeeze the Speed Control (10b) briefly and let up. The Speed Control will revert to its original position, causing the Engine to idle. **(See Figures C and D.)**
- 11. To stop the Auger Drill, release pressure on the Speed Control (10b). Then, press down on the Kill Switch (5b). Always keep your thumb near the Kill Switch in the event the Auger Drill must be stopped immediately. (See Figure D.)

### **Drilling a Hole**

FRAME (1b)

- 1. Stand with a solid stance on stable ground. Brace yourself and maintain a proper grip *with both hands* on the Frame (1b) whenever the Engine is running. **(See Figure E.)**
- 2. Accelerate the Engine to full throttle just before starting to drill by squeezing the Speed Control (10b). Also, keep the Engine at full throttle the entire time you are drilling, unless a problem arises. (See Figure E.)
- 3. **Do not attempt to drill at an angle**. Keep the Auger (33a) vertical at all times.
- Engine is
  Ill throttle v squeezb). Also, rottle the unless a re E.)
  In angle. ical at all
  Il for you.
  FIGURE E
- Allow the Auger (33a) to drill for you. Exert only light downward pressure. If you attempt to force the drill, damage to the Auger Drill and Auger (33a) can result. Be aware of the strong twisting forces produced by the drill during operation. (See Figure E.)
- 5. Release the Speed Control (10b) as soon as the drilling is completed, allowing the Engine to idle. **NOTE:** Running the Auger Drill at full throttle without a drilling load can cause unnecessary wear or damage to the Auger Drill. **(See Figure E.)**
- 6. After running the Auger Drill for an extended period of time, allow the Engine to idle for several minutes to dissipate the heat. This will prevent some Engine parts (ignition system, piston rings, carburetor, etc.) from being damaged by overheating. Then press the Kill Switch (5b) to turn off the Engine. (See Figure E.)
- Before storing the Auger Drill, make sure to drain all fuel out of the tool's Fuel Tank (89). If this is not followed, old fuel in the Fuel Tank may clog the Carburetor and prevent the tool from starting until cleaned out. Then store the tool in a clean, dry, safe location out of reach of children and other unauthorized people. (See Figure E.)

# **INSPECTION, MAINTENANCE, AND CLEANING**

- 1. **WARNING!** Always make sure the Spark Plug (51) is removed and the engine has cooled completely prior to performing any service, maintenance, or cleaning of the Auger Drill.
- Before each use: Inspect the general condition of the Auger Drill. Check misalignment or binding of moving parts, cracked or broken parts, dull or damaged Auger (33a), and any other condition that may affect the safe operation of the tool. If abnormal noise or vibration occurs, have the problem corrected before further use. <u>Do not use damaged equipment.</u>
- 3. **Auger (33a) maintenance:** An Auger that is bent or filled with excessive dirt and debris can cause possible personal injury. Replace a damaged Auger and keep the Auger clean at all times.
- 4. **Spark Plug (51) maintenance:** The condition of the Spark Plug should be checked every six months or 100 hours of tool use. If necessary, clean or replace the Spark Plug. The recommended Spark Plug replacement type is: **"L7T"**.
- 5. **Air Filter (78) maintenance:** The Air Filter should be checked prior to each use of the Auger Drill for excessive dirt and debris buildup. Thereafter, the Air Filter should be cleaned or replaced every three months or 50 hours of tool use.
- 6. **Gearbox (8a) maintenance:** The Gearbox should be checked prior to each use of the Auger Drill for proper quantity. If necessary, fill the Gearbox with SAE 80-90 weight gear oil. The Gearbox should be filled with clean, new gear oil every three months or 50 hours of tool use.
- 7. **To clean the Auger Drill:** Use a clean cloth and a mild detergent to clean the exterior of the Engine. Do not use solvents. Use a garden hose to clean the Auger (33a). Do not introduce liquids into the interior of the Engine.
- 8. When storing the Auger Drill: Before storing, drain all fuel out of the tool's Fuel Tank (89). If this is not followed, old fuel in the Fuel Tank may clog the Carburetor and prevent the tool from starting until cleaned out. Then store the tool in a clean, dry, safe location out of reach of children and other unauthorized people.
- 9. **CAUTION!** All maintenance, service or repairs not mentioned in this manual must only be performed by a qualified service technician.

# TROUBLESHOOTING

| Darkhar                                |   |   |
|--|---|---|
| Problem                                | Possible Cause  | Possible Solution   |
| Engine will not start.                 | <ol> <li>Low or no fuel in fuel tank or<br/>improper fuel/2-cycle oil mix.</li> </ol> | 1. Fill fuel tank with proper 25:1 unleaded gasoline/2-cycle oil mix.                                 |
|  | <ol> <li>Not enough fuel getting to<br/>carburetor.</li> </ol>                        | <ol> <li>Press primer 3-4 times. Set choke to<br/>"START". Then attempt to start engine.</li> </ol>   |
|  | 3. Faulty spark plug.   | 3. Clean or replace spark plug.   |
|  | 4. Contaminated fuel.   | 4. Have a qualified service technician  |
|  | <ol> <li>Insufficient electrical current<br/>getting to spark plug.</li> </ol>        | empty old fuel from fuel tank. Then, refill fuel tank with fresh fuel mixture.                        |
|  |   | <ol> <li>Have a qualified service technician<br/>inspect electrical system.</li> </ol>                |
| Engine runs, but auger not rotating.   | <ol> <li>Speed control not properly<br/>used.</li> </ol>                              | 1. Make sure to fully squeeze the speed control.  |
|  | <ol><li>Speed control cable not<br/>properly adjusted.</li></ol>                      | <ol> <li>Have a qualified service technician<br/>adjust speed control cable.</li> </ol>               |
|  | <ol> <li>Auger stuck in rocks, roots,<br/>etc.</li> </ol>                             | 3. Remove auger from hole and clear hole of obstructions.   |
| Auger rotates while engine is at idle. | Engine idle speed set too high.   | Have a qualified service technician reset carburetor idle adjustment screw to lower idle (RPM) speed. |
| Gearbox feels                          | Low gear oil.   | Immediately turn off Auger Drill. Allow   |
| exceptionally hot to the               |   | gearbox to completely cool. Then, fill  |
| touch.<br>Kill switch does not turn    | Faulty kill switch.   | gearbox with SAE 80-90 gear oil.<br>Immediately remove spark plug cap from                            |
| off engine.                            |   | spark plug to stop engine. Discontinue  |
|  |   | using Auger Drill until the tool is repaired by   |
|  |   | a qualified service technician.   |

# PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEM-BLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

### Record Product's Serial Number Here:\_\_\_\_

**Note:** If product has no serial number, record month and year of purchase instead.

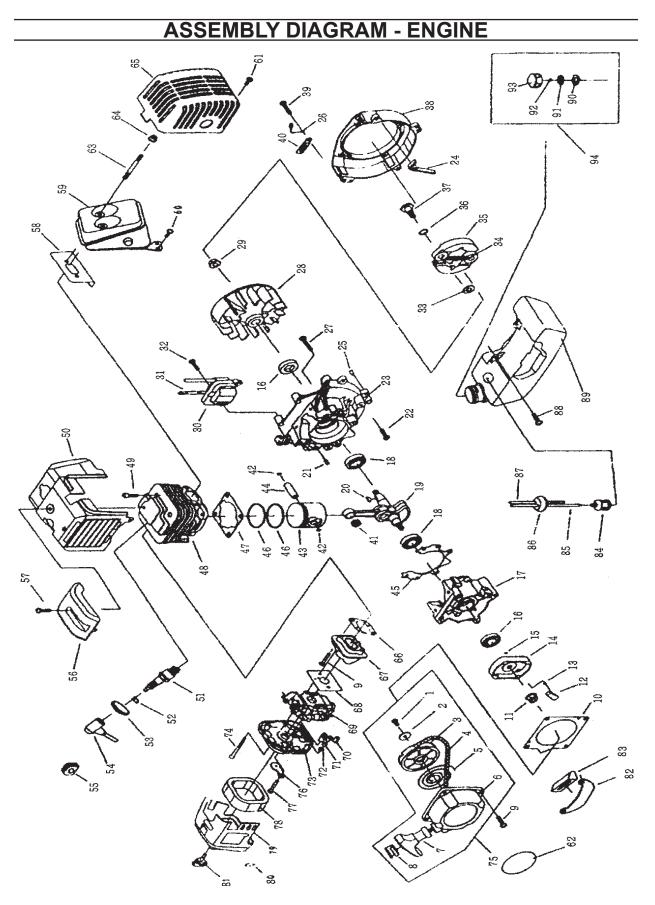
**Note:** Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

# **PARTS LIST - ENGINE**

| Part | Description               | Qty. | Part | Description                    |
|------|---------------------------|------|------|--------------------------------|
| 1    | Set Screw (M5 x 12)       | 1    | 49   | Bolt (M5 x 18)                 |
| 2    | Gasket                    | 1    | 50   | Cylinder Cover                 |
| 3    | Reel                      | 1    | 51   | Spark Plug                     |
| 4    | Starter Rope              | 1    | 52   | Spark Plug Clip Reed           |
| 5    | Spiral Spring             | 1    | 53   | Spark Plug Cover               |
| 6    | Rewind Starter Assy.      | 1    | 54   | Spark Plug Cap                 |
| 7    | Starter Handle            | 1    | 55   | Cap Cover                      |
| 8    | Handle Clip               | 1    | 56   | Top Cover                      |
| 9    | Screw (M5 x 20)           | 6    | 57   | Screw (M5 x 20)                |
| 10   | Crankcase Gasket          | 1    | 58   | Muffler Insulator              |
| 11   | Nut (M8)                  | 1    | 59   | Muffler                        |
| 12   | Startup Claw              | 1    | 60   | Socket Head Bolt (M5 x 12)     |
| 13   | Startup Reed              | 1    | 61   | Socket Head Bolt (M5 x 12)     |
| 14   | Pulley                    | 1    | 62   | Label                          |
| 15   | Outer Snap Ring (4)       | 1    | 63   | Stud                           |
| 16   | Small Oil Seal            | 2    | 64   | Nut (M6)                       |
| 17   | Crankcase Cover           | 1    | 65   | Muffler Protection Cover       |
| 18   | Ball Bearing (6201/P5)    | 2    | 66   | Intake Port Gasket             |
| 19   | Crankshaft (Complete)     | 1    | 67   | Intake Port                    |
| 20   | Woodruff Key (3 x 5 x 13) | 1    | 68   | Carburetor Gasket              |
| 21   | Set Pin (B4 x 10)         | 2    | 69   | Carburetor Assy.               |
| 22   | Screw (M5 x 12)           | 2    | 70   | Choke Switch                   |
| 23   | Crankcase                 | 1    | 71   | Washer                         |
| 24   | Flow Guard                | 1    | 72   | Nut (M4)                       |
| 25   | Set Pin (B4 x 10)         | 2    | 73   | Air Cleaner Case               |
| 26   | Support                   | 1    | 74   | Bolt (M5 x 50)                 |
| 27   | Screw (M5 x 30)           | 4    | 75   | Recoil Starter                 |
| 28   | Rotor                     | 1    | 76   | Choke                          |
| 29   | Nut (M8)                  | 1    | 77   | Self Tapping Bolt (ST4.2 x 12) |
| 30   | Stator                    | 1    | 78   | Air Filter                     |
| 31   | Flameout Line             | 1    | 79   | Air Filter Cover               |
| 32   | Screw (M5 x 21)           | 3    | 80   | Label                          |
| 33   | Washer (B)                | 2    | 81   | Head Cover Bolt                |
| 34   | Return Spring             | 1    | 82   | Gasoline Tank Strut            |
| 35   | Flexible Piece            | 2    | 83   | Latex Cover                    |
| 36   | Washer                    | 2    | 84   | Fuel Filter                    |
| 37   | Screw                     | 2    | 85   | Fuel Line                      |
| 38   | Fan                       | 1    | 86   | Fuel Line Plug                 |
| 39   | Screw (M5 x 20)           | 4    | 87   | Fuel Line                      |
| 40   | Wire Clip                 | 1    | 88   | Bolt (M5 x 20)                 |
| 41   | Piston Pin                | 1    | 89   | Fuel Tank                      |
| 42   | Piston Pin Circlip        | 2    | 90   | Packing Ring                   |
| 43   | Piston                    | 1    | 91   | Intake Strut                   |
| 44   | Piston Pin                | 1    | 92   | Intake                         |
| 45   | Crankcase Gasket          | 1    | 93   | Fuel Cap                       |
| 46   | Piston Ring               | 2    | 94   | Fuel Tank Cap w/Filter Set     |
| 47   | Cylinder Gasket           | 1    | 95   | Primer                         |
| 48   | Cylinder Cover            | 1    |      |                                |
|      |                           |      |      |                                |

SKU 95346 For technical questions, please call 1-800-444-3353

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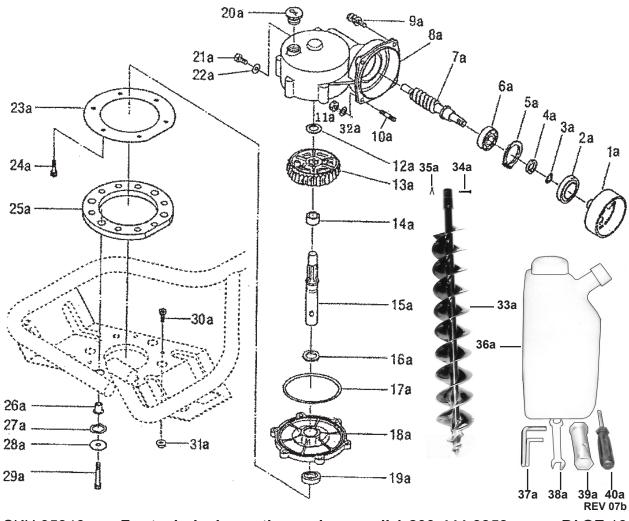
SKU 95346 For technical questions, please call 1-800-444-3353 PAGE 15

| Part | Description              | Qty. |
|------|--------------------------|------|
| 1a   | Starting Flange          |      |
| 2a   | Oil Seal (20 x 52 x 7)   | 1    |
| 3a   | Washer                   | 1    |
| 4a   | Washer                   | 1    |
| 5a   | Fender Ring (47)         | 1    |
| 6a   | Bearing (6204)           | 1    |
| 7a   | Worm Gear                | 1    |
| 8a   | Gearbox                  | 1    |
| 9a   | Hex Head Screw (M6 x 25) | 4    |
| 10a  | Stud (M6)                | 4    |
| 11a  | Nut (M6)                 | 4    |
| 12a  | Washer                   | 1    |
| 13a  | Gear                     | 1    |
| 14a  | Lining                   | 1    |
| 15a  | Transmission Shaft       | 1    |
| 16a  | Washer                   | 1    |
| 17a  | Gasket                   | 1    |
| 18a  | Gearbox Cover            | 1    |
| 19a  | Oil Seal (20 x 35 x 7)   | 1    |
| 20a  | Oil Fill Plug            | 1    |

# PARTS LIST - GEARBOX UNIT

| Part | Description              | Qty. |  |
|------|--------------------------|------|--|
| 21a  | Bolt (M6 x 12)           |      |  |
| 22a  | Washer                   | 1    |  |
| 23a  | Paper Underlay           | 1    |  |
| 24a  | Screw (M6 x 16)          | 6    |  |
| 25a  | Cushion Frame            | 1    |  |
| 26a  | Liner Tube               | 5    |  |
| 27a  | Washer                   | 10   |  |
| 28a  | Washer (6)               | 1    |  |
| 29a  | Hex Head Screw (M6 x 30) | 5    |  |
| 30a  | Screw                    | 4    |  |
| 31a  | Nut                      | 4    |  |
| 32a  | Washer                   | 4    |  |
| 33a  | Auger                    | 1    |  |
| 34a  | Pin                      | 1    |  |
| 35a  | Safety Pin               | 1    |  |
| 36a  | Fuel Mix Container       | 1    |  |
| 37a  | Hex Wrenches             | 2    |  |
| 38a  | Open End Wrench          | 1    |  |
| 39a  | Spark Plug Socket        | 1    |  |
| 40a  | Standard Screwdriver     | 1    |  |

### **ASSEMBLY DIAGRAM - GEARBOX UNIT**



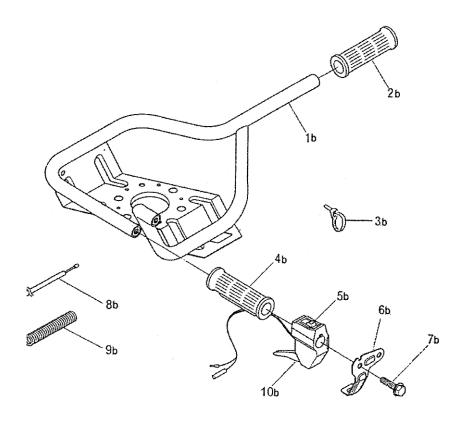
SKU 95346 For technical questions, please call 1-800-444-3353

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# PARTS LIST & ASSEMBLY DIAGRAM - FRAME

| Part | Description      | Qty. |
|------|------------------|------|
| 1b   | Frame (Complete) | 1    |
| 2b   | Handle           | 1    |
| 3b   | Tie Strip        | 3    |
| 4b   | Handle           | 1    |
| 5b   | Kill Switch      | 1    |

| Part | Description         | Qty. |
|------|---------------------|------|
| 6b   | Kill Switch Bracket | 1    |
| 7b   | Screw (M12 x 20)    | 2    |
| 8b   | Accelerator Cable   | 1    |
| 9b   | Bushing             | 1    |
| 10b  | Speed Control       | 1    |



# **Emission Control System Warranty**

#### **United States Emission Control Defects Warranty Statement**

The United States Environmental Protection Agency (herein EPA), and Harbor Freight Tools<sup>®</sup> (herein HFT) are pleased to explain the emission control system warranty on your 1995 and later Small Off-Road Engine (herein engine). Within the United States, new off-road, spark-ignition engines certified for model year 1997 and later, must meet similar standards set forth by the EPA. HFT must warrant the emission control system on your engine for the periods of time described below, provided there has been no abuse, neglect or improper maintenance of your engine.

Your emission control system may include parts such as the carburetor or fuel-injection system, and the ignition system. Also included may be hoses, belts, connectors and other emission-related assemblies.

Where a warrantable condition exists, HFT will repair your engine at no cost to you including diagnosis, parts and labor.

#### Manufacturer's Warranty Coverage

The 1995 and later engines are warranted for two (2) years. If any emission-related part on your engine is defective, the part will be repaired or replaced by HFT.

#### Harbor Freight Tools Emission Control Defects Warranty Coverage

Engines are warranted for a period of two (2) years relative to emission control parts defects, subject to the provisions set forth below. If any emission related part on your engine is defective, the part will be repaired or replaced by HFT.

#### **Owner's Warranty Responsibilities**

- As the engine owner, you are responsible for the performance of the required maintenance listed in your Owner's Manual. HFT recommends that you retain all receipts covering maintenance on your engine, but HFT cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.
- As the engine owner, you should, however, be aware that HFT may deny you warranty coverage if your engine or a part has failed due to abuse, neglect, improper maintenance, or unapproved modifications.
- You are responsible for shipping your engine to a HFT warranty station as soon as a problem exists. Contact the HFT Customer Service department at the number below to make shipping arrangements. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty rights and responsibilities, you should contact the Harbor Freight Tools Customer Service Department at 1-800-444-3353.

#### Harbor Freight Tools Emission Control Defects Warranty Provisions

#### 1. Length of Coverage

HFT warrants to a first retail purchaser and each subsequent purchaser that the engine is free from defects in materials and workmanship that cause the failure of warranted parts for a period of two (2) years after the date of delivery to the first retail purchaser.

#### 2. No Charge Repair or Replacement

Repair or replacement of any warranted part will be performed at no charge to the owner if the work is performed through a warranty station authorized by HFT. For emissions warranty service, contact the HFT Customer Service Department at 1-800-444-3353.

#### 3. Consequential Damages Coverage

Coverage under this warranty shall also extend to the failure of any engine components caused by the failure of any warranted part while it is still covered under this warranty.

#### 4. Coverage Exclusions

Warranty claims shall be filed in accordance with the provisions of the HFT warranty policy explained in the box at the top of the previous page. HFT shall not be liable for any loss of use of the engine, for any alternative usage, for any damage to goods, loss of time, or inconvenience. Warranty coverage shall also be excluded for any part which fails, malfunctions, or is damaged due to failure to follow the maintenance and operating instructions set forth in the Owner's Manual including, but not limited to:

- (a) use of parts which are not authorized by HFT
- (b) improper installation, adjustment or repair of the engine or of any warranted part unless performed by an authorized warranty center
- (c) failure to follow recommendations on fuel use contained in the Owner's Manual
- (d) improper or inadequate maintenance of any warranted parts
- (e) repairs performed outside of the authorized warranty service dealers
- (f) alterations by changing, adding to or removing parts from the engine.

# **Emission Control System Warranty** - continued

Harbor Freight Tools Emission Control Defects Warranty Provisions

#### 5. Service and Maintenance

Component parts which are not scheduled for replacement as required maintenance or are scheduled only for regular inspection to the effect of "repair or replace as necessary" are warranted for the warranty period. Any warranted part which is scheduled for replacement as required maintenance is warranted for the period of time up to the first scheduled replacement point for that part. Any replacement part, provided it is equivalent in durability and performance, may be used in performance of maintenance or repairs. The owner is responsible for commissioning a qualified technician/mechanic to perform all required maintenance, as outlined in the **Inspection, Cleaning, and Maintenance** section on pages 11 and 12 of this manual.

#### 6. Warranted Parts

#### 1) Fuel Metering System

- i) Carburetor and its internal parts.
- ii) Fuel pump (if so equipped).
- iii) Cold start enrichment system.

#### 2) Air Induction System

- i) Intake pipe/manifold.
- ii) Air cleaner.

#### 3) Ignition System

- i) Spark plug.
- ii) Magneto ignition system.

#### 4) Catalyst System (if so equipped)

- i) Exhaust pipe stud.
- ii) Muffler.
- iii) Catalytic converter (if so equipped).

#### 5) Miscellaneous items Used in Above Systems

- i) Vacuum, temperature and time sensitive valves and switches.
- ii) Hoses, belts, connectors, and assemblies.

# LIMITED 1 YEAR / 90 DAY WARRANTY

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that for a period of ninety days from date of purchase that the engine/motor, the belts (if so equipped), and the blades (if so equipped) are free of defects in materials and workmanship. Harbor Freight Tools also warrants to the original purchaser, for a period of one year from date of purchase, that all other parts and components of the product are free from defects in materials and workmanship (90 days if used by a professional contractor or if used as rental equipment). This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

#### 3491 Mission Oaks Blvd. • PO Box 6009 • Camarillo, CA 93011 • (800) 444-3353